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January 26, 2023

Mr. Steven Boulay, Chairman Shrewsbury Planning Board 100 Maple Avenue Shrewsbury, MA 01545

Subject:

Response to MDM Transportation Review Comments

Proposed Automobile Dealership 701 Boston Turnpike, Shrewsbury, MA

Site Plan Review

Dear Mr. Boulay and Members of the Board:

We are writing to respond to the Site Plan-related review comments addressed to the Board in a letter from Robert Michaud, P.E. of MDM Transportation Consultants, Inc. (MDM) dated November 29, 2022. Maureen McHugh, P.E. of McMahon has addressed the bulk of the comments from the MDM review, but has deferred comment on items 5, 10-12 to Thompson-Liston Associates, Inc.(TLAI). Our responses are below. The MDM comments are shown in grayscale and our responses are shown in *bold italics*.

5. <u>Driveway Sight Distance:</u> ...The Site Layout Plan should clearly indicate intersection sight triangles and indicate a note citing that "Signs, landscaping and other features located within sight triangle areas shall be designed, installed, and maintained so as not to exceed 2.5-feet in height. Snow windrows located within sight triangle areas that exceed 3.5-feet in height or that would otherwise inhibit sight lines shall be promptly removed."

TLAI Response: Intersection Sight Distance triangles have been added to the Site Layout Plan, and we have added notes as requested. For the most part these triangles are within the public rights-of-way, and will not be affected by improvements on the site itself. Clearing vegetation and lowering the existing grades (removing the retaining wall) along Boston Turnpike provides an open unobstructed view to exiting drivers.

10. Sight Access/Sight Lines: MDM Recommends that the applicable sight line triangles be shown on the Site Plans along with measured sight lines to confirm that minimum sight line criteria are met, and if possible, the ideal Intersection Sight Distance (ISD). The sight line triangles should not encroach onto adjoining (private) property to achieve sight line criteria. The Site Layout Plan should also include a note citing that "Signs, landscaping and other features located within sight triangle areas shall be designed, installed, and maintained so as not to exceed 2.5-feet in height. Snow windrows located within sight triangle areas that exceed 3.5-feet in height or that would otherwise inhibit sight lines shall be promptly removed."

TLAI Response: As stated in our response to #5 above, we have added the intersection sight distance triangles and note to the plans, as requested. The triangles shown are the "ideal" sight distances (ISD). Along Boston Turnpike, the ISD is 375 ft. and along South Street, the ISD is 365 ft.

10. <u>Site Access Design/South Street Driveway (ii):</u> Further commentary on the proposed South Street driveway relates to grading. Pans for the driveway should clearly indicate

driveway profile, ensure that there is an appropriately dimensioned level landing area/length, that adequate sight lines are provided to meet applicable AASHTO design criteria for measured 86th percentile travel speeds and that drainage from the driveway does not impact the South Street corridor.

TLAI Response: The driveway profile has been designed to provide a leveling area of <3% for a distance of 75 feet as it approaches South Street. We have added a profile drawing to the plan set showing the slopes and vertical curves of the driveway. The driveway has been designed from the outset of our involvement to accommodate the Subaru of New England auto carrier. Sight distance was covered in our response to #5 and #10 above. The stormwater system has been designed to mitigate the peak rate of flow and is part of the review being conducted by Graves Engineering, Inc. (GEI). Stormwater issues are discussed at length in our separate response letter to the GEI review. Two proposed catch basins collect runoff from the site driveway at the right of way line.

11. <u>Site Circulation (a)</u>: MDM questions the need for large vehicle deliveries via the South Street driveway; the Route 9 driveway is more proximate to the vehicle inventory parking area. Analysis indicates that the swept path turning left from South Street also encroaches on the outbound/existing driveway lane. We advise limiting commercial vehicle access/egress to the Route 9 driveway.

TLAI Response: During the ZBA public hearing process, the proponent agreed to restrict the South Street driveway to right turns in and out, so the concerns about left turns movement for commercial vehicles entering into the driveway are moot. Use of a driveway on South Street is essential to the commercial use of the site and one of the reasons why the site is desirable from a business perspective. Trucks pulling out into Route 9 from a stop present a safety concern. It is far more desirable to pull out from a stop at a signal where the movement is protected. For trucks to return to I-495 from the site, access to Eastbound Route 9 is essential. The alternative is a route where a truck will have to make four turns at stop-controlled intersections rather than one turn at a signalized intersection. During the public hearing of the Planning Board, the proponent explained that the auto carriers (and parts tricks) are owned by Subaru of New England and the drivers are their employees, so they have control over the times of deliveries. The proponent committed to and suggested a condition of approval that would restrict the hours that their auto carriers and parts trucks would exit onto South Street to off-peak hours.

11. <u>Site Circulation (b):</u> Applicant should confirm that the Site Layout provides sufficient maneuvering area to accommodate the Town's larges responding fire apparatus (ladder truck) by conducting AutoTurn vehicle turn analysis/exhibits.

TLAI Response: We have expanded our truck turning exhibit to include the Town's fire design vehicle. Since the access drives and aisles were designed for the much larger Subaru of New England auto carrier, there is no issue with the fire truck navigating the aisles.

11. <u>Site Circulation (c)</u>: Modeling of service /delivery vehicles to/from the loading/delivery receiving area of the building should be provided for the appropriate/anticipated design vehicle types.

TLAI Response: We have expanded our truck turning exhibit to include the parts trucks/trach trucks that will access the parts department and roll-off dumpsters. These trucks will enter from Route 9 and return to Route 9 at the rear of the building. Truck traffic will not be allowed and is not desirable along the front of the

showroom where sales customers will be parking and test drives will occur.

12. General Site Plan Comments (Transportation) (a): American with disabilities Act (ADA) compliant wheelchair ramps and crossing should be provided at all pedestrian crossings internal to the Project site and at the South Street site driveway. MDM defers to MassDOT on whether the Route 9 driveway requires these design features, or whether a sidewalk connection to Route 9 is necessary.

TLAI Response: Wheelchair accessible ramps and crosswalks have been added within the site where they are warranted, as well as at the South Street driveway where the raised island has been added. Walks will not be proposed or constructed to Route 9 unless required by MassDOT. There is no pedestrian access along this stretch of highway.

12. <u>General Site Plan Comments (Transportation) (b)</u>: Consideration should be given to installing electric vehicle (EV) charging stations within the Project site at convenient and easily accessible location to encourage EV use.

TLAI Response: At the public hearing of the Planning Board, the proponent committed to providing interior and exterior EV charge points. Subaru has entered the US all-electric vehicles market, and providing convenient charging for the customers' vehicles will be an important consideration in the design of the facility. Actual locations will be determined as the building design progresses from preliminary to design development phase, and as Subaru provides guidance to dealers on its corporate standards. Many questions must be answered before the location and number of charge points are defined on the Site Plan.

If you or Mr. Michaud have any questions or need any additional information to complete the review, please do not hesitate to contact me at 508-869-6151 or patrick.healy@tlainc.net. Thank you.

Very truly yours,

THOMPSON-LISTON ASSOCIATES, INC.

Patrick. J. Healy, P.E.

Principal

Enclosures

cc: Louise O'Neill, Assistant Town Planner

Andy Truman, Town Engineer

Michael Clemmey, Boch Shrewsbury-Worcester LLC

Richard Ricker, Esq.